

Ministry of Education and Science of Ukraine

Kharkiv National Automobile and Highway University

the Department of Metal Technology and Materials Science named after O.M. Petrychenko



We invite you to participate in

**the International Scientific and Technical Conference
«Materials Science and Modern Technologies»**

to be held on

September 25-26, 2025

using Internet platforms

Kharkiv, Ukraine

INFORMATION NOTICE

Dear colleagues!

According to the plan for holding international, all-Ukrainian scientific-practical and scientific-methodological conferences and seminars in 2025 (Certificate of UkrINTEI No. 791 dated December 9, 2024), on **September 25–26, 2025**, at the Department of Metal Technology and Materials Science named after O.M. Petrychenko of the Kharkiv National Automobile and Highway University (KNAHU) in an online format using the Zoom platform, the **International Scientific and Technical Conference «Materials Science and Modern Technologies»**.

Purpose of the conference:

Discussion of current tasks and priority areas for the development of materials science, modern materials processing technologies, and their application in various fields. Generalization of experience, exchange of knowledge, and expansion of international ties in the scientific community.

To participate in the conference, please send the following to the organizing committee's email address **kaf.tmim.khnahu@gmail.com** by **September 19, 2025**:



- Information about the speaker: surname, first name, and patronymic (in full); academic title, academic degree, position/current educational degree (for applicants); name of higher education institution, city of location, country; e-mail and mobile phone number.
- Section number; title of conference presentation.

In the subject line, please indicate:

«Application for the International Conference MST 2025 – your full name»

The working languages of the conference – Ukrainian and English.

Participation in the conference is free!

The conference program will be posted at the following [link](#).

Following the conference, speakers will have the opportunity to publish their work in a *Ukrainian category «B» professional journal*, the scientific journal “Bulletin of Kharkiv National Automobile and Highway University.”

Requirements for articles in the professional journal can be found at this [link](#).

PRELIMINARY CONFERENCE TOPICS

SECTION 1. MATERIALS SCIENCE

- Fundamental research and properties of materials: modern concepts, interdisciplinary research, and practical applications.
- Creation of new materials: metallic, ceramic, polymeric, composite, and nanomaterials.
- Structure and microstructure: methods of analysis, testing, and quality control of materials, including metallography, X-ray structural analysis, electron microscopy, etc.
- Protection of materials from destruction: corrosion, wear resistance, fatigue, and other types of degradation.
- Materials for special operating conditions: materials for the aerospace, automotive, energy, and other industries.
- Education in materials science: innovative teaching methods, training of specialists, and integration of research into the educational process.

SECTION 2. MODERN TECHNOLOGIES

- Material processing technologies: welding, casting, pressure treatment, thermal and chemical-thermal treatment.
- Additive technologies: 3D printing with metal, polymer, and ceramic powders; their application and possibilities.
- Information technology in materials science: computer modelling, digital design, and AI tools for predicting material properties.
- Automation of production processes: use of robotics, automated control systems, and CNC (computer numerical control).

CONFERENCE ORGANISING COMMITTEE

- **Viktor BOHOMOLOV**, Chairman of the Organising Committee, Doctor of Technical Sciences, Professor, Rector of KhNAHU;
- **Illia DMYTRIIEV**, Deputy Chair of the Organising Committee, Doctor of Economics, Professor, Vice-Rector for Research, KhNAHU;
- **Oleksandr YEFYMENKO**, Deputy Chairman of the Organising Committee, PhD, Professor, Dean of the Faculty of Mechanical Engineering, KhNAHU;
- **Diana HLUSHKOVA**, Deputy Chair of the Organising Committee, Doctor of Technical Sciences, Professor, Head of the Department of Metal Technology and Materials Science named after O.M. Petrychenko, KhNAHU;
- **Vladyslava BAIDALA**, Executive Secretary of the Organising Committee, Technical Secretary of the Conference, Assistant at the Department of Metal Technology and Materials Science named after O.M. Petrychenko, KhNAHU.

RESPONSIBLE FOR CONDUCTING THE CONFERENCE

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Kharkiv National Automobile and Highway University

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